Catalogue of American Amphibians and Reptiles.

Schreiber, M.C., R. Powell, and J.S. Parmerlee, Jr. 1995. *Leiocephalus schreibersii*.

Leiocephalus schreibersii (Gravenhorst)

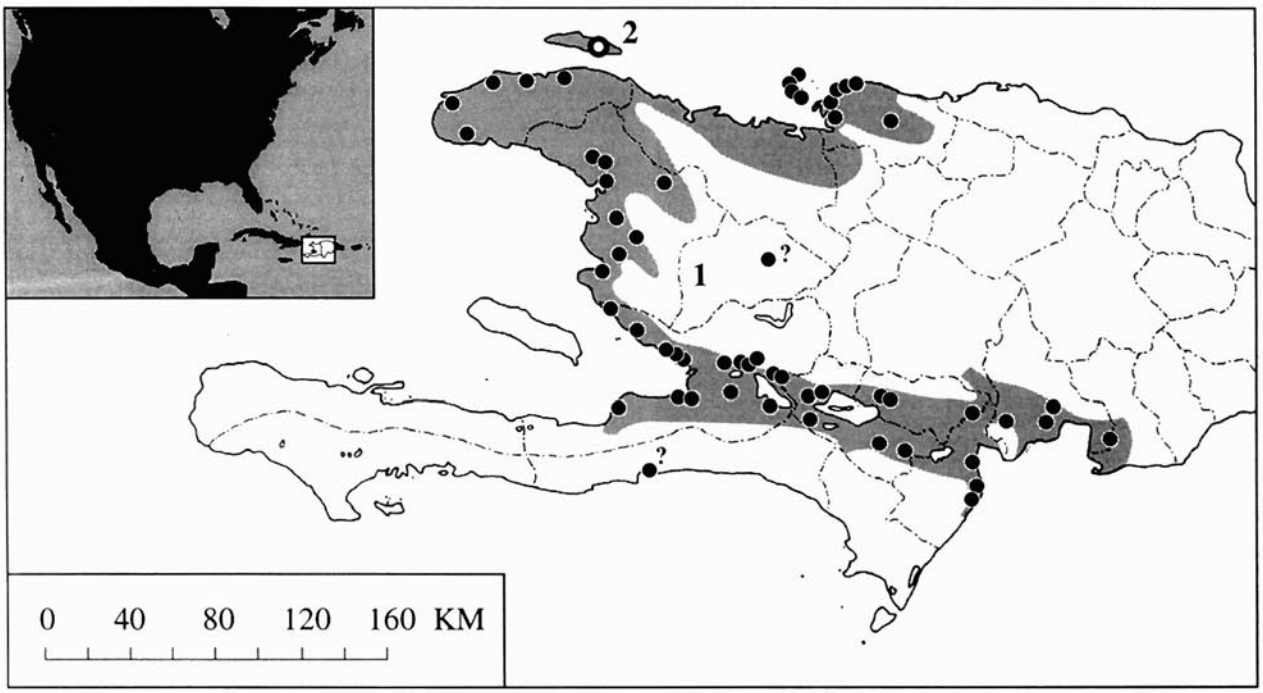
Tropidurus Schreibersii: Fitzinger, 1826:49. *Nomen nudum.*
Pristinotus schreibersii Gravenhorst, 1837[1838]:739. Type-locality, "San Domingo," restricted by Schwartz (1968) to the vicinity of Port-au-Prince, Dépt. de l'Ouest, Haiti. The holotype was reported to exist in the Breslau Museum (Cochran, 1941), but could not be located (Schwartz and Thomas, 1975).
Steironotus schreibersii: Fitzinger, 1843:70.
Liocephalus schreibersii: Cope, 1868:123.
Leiocephalus schreibersii: Barbour, 1914:301.
Leiocephalus schreibersi: Schwartz, 1968:39.
Leiocephalus c(arinatus). schreibergi: Ashton and Ashton, 1985: 172. *Lapsus.*

Figure. An adult male *Leiocephalus schreibersii schreibersii* from Cayo Tororú, Cayos Siete Hermanos, Provincia de Monte Cristi, República Dominicana. Note the scars resulting from intraspecific combat.

• **Content.** Two subspecies are recognized: *schreibersii* and *nesomorus* (but see Remarks).

• **Definition.** *Leiocephalus schreibersii* is a tropidurid of moderate size, with SVL of males to 107 mm (Schwartz and Henderson, 1991) and that of females to 83 mm (Burns et al., 1992). Males possess 2-3 pairs of enlarged postanals. A distinct lateral fold is present, with smaller scales in the fold. Dorsal scales are imbricate and keeled; ventrals imbricate, smooth, and subcycloid to very weakly denticulate. Median dorsal crest scales (63-87 in occiput-vent distance) are slightly enlarged, considerably less so than median dorsal caudal scales. Head scalation is as follows: usually 7/7 supraoculars, 2-16 (usually 2-8) loreals, 11-18 temporals, supraorbital semicircles usually complete, prefrontal and frontoparietal rows usually complete, parietals more often in contact than not (varies by population), no azygous scales between posterior median head scales, and median head scales 3-14 (Schwartz and Henderson, 1991).

The species demonstrates distinct sexual dichromatism. Males are pale tan or gray to sandy dorsally, often with yellow, gold, or buffy dots and with a gray to pale blue venter; or without flecking or dotting (or rarely with faint gold flecks) and a pale rose-orange venter. The head occasionally is marked with darker brown spots or bars. Along the lateral fold a series of pale bars are often present. The throat is uniform grayish blue to purplish, occasionally with scattered blue to green scales. A series of 5-6 red to orange lateral bars extend onto the sides of the venter. These bars are flecked with pale blue or green scales,



Map 1. The Hispaniolan range of *Leiocephalus schreibersii* (modified from Schwartz and Henderson, 1991). The large circle marks the type-locality of *L. s. nesomorus*. The type-locality of the nominate subspecies is too imprecise to mark. Dots mark other known localities. Question marks indicate uncertain records.

occasionally with a blue-green or orange spot at the shoulder. The tail has a more distinct reddish orange cast, especially ventrally, occasionally mixed with pale blue scales below. Females are more cryptically colored and sandier than males, without orange or green on the dorsum or sides, and usually with 8 transverse or attenuate dorsal hourglasslike figures. The throat is gray, sometimes clouded, often streaked with darker gray or white. A black to gray axillary spot may be present in either sex.

• **Diagnosis.** *Leiocephalus schreibersii* can be distinguished from all other Hispaniolan congeners, except *L. melanochlorus*, by the presence of lateral folds with scales distinctly smaller than the dorsals. This species may be distinguished from *L. melanochlorus* by the following combination of characters (Henderson and Schwartz, 1984; Henderson et al., 1984): smaller size (males of *melanochlorus* to 130 mm, females to 102 mm SVL), dorsal scales 63-87 in occiput-vent distance (37-53 in *melanochlorus*), and supraoculars usually 7/7 (6/6 in *melanochlorus*).

• **Descriptions.** In addition to those references cited in the synonymies and those (usually brief) found in faunal lists, descriptions are in Mertens (1939a), Cochran (1941), Schwartz (1968), Schwartz and Henderson (1991), and Pregill (1992). Gorman et al. (1967) described the karyotype (2N = 36 [12 macrochromosomes + 24 microchromosomes]).

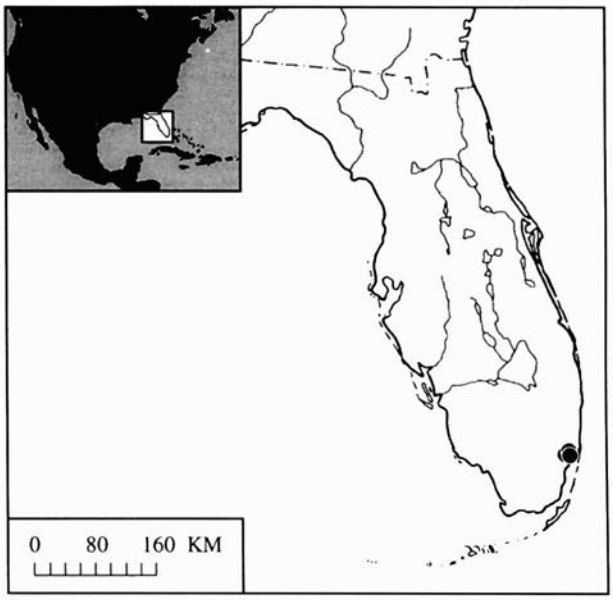
• **Illustrations.** A colored illustration is in Conant and Collins (1991). Black and white photographs of a male and a female are in Klingel (1929). Additional black and white photographs of adult males are in Mertens (1939a, 1940), Wilson and Porras (1983), Henderson and Schwartz (1984), and Burns et al. (1992). Cochran (1941) provided a line drawing of the top of the head. Irish et al. (1988) included scanning electron micrographs of the shedding-phase epidermis.

• **Distribution.** A Hispaniolan endemic, the species is known in Haiti from Presqu'île du Nord-Ouest, along the Golfe de la Gonâve south to the northern shore of the base of the Tiburon Peninsula, east along the Plaine de Cul de Sac into the Dominican Republic through the Valle de Neiba and the Llanos de Azua; also from the northwestern Dominican Republic, in the xeric western Valle de Cibao and on five of the adjacent Cayos Siete Hermanos. Questionable localities have been reported from Hinche and Jacmel (Schwartz and Henderson, 1991). Florida populations are noted in Wilson and Porras (1983), Ashton and Ashton (1985), Conant and Collins (1991), and Bartlett (1994).

The range was illustrated in Schwartz (1968), Conant and Collins (1991), and Schwartz and Henderson (1991).

• **Fossil Record.** None.

• **Pertinent Literature.** Noble and Bradley (1933) described mating behavior. Etheridge (1966) evaluated relationships within the genus based on morphological characters and placed South American species previously assigned to *Leiocephalus* in the genus *Ophryoessoides*. Schwartz (1968) discussed distribution, geographic variation, habitat, sympatry with other Hispaniolan *Leiocephalus*, and provided comparisons with related forms from the southern Bahama islands. SEA/DVS (1990) provided an index to habitats in the Dominican Republic. The species is included in a systematic treatise of the genus by Pregill (1992). Schwartz (1980) characterized this species as a North Island invader of the South Island. Regal (1978) examined behavior. Lang (1989) discussed relationships among iguanians. Barret (1989) noted cannibalism and Jenssen et al. (1989) described differential infanticide. Marcellini and Jenssen (1989, 1991) discussed thermal ecology and behavior, respectively. Schreiber et al. (1993) presented information on natural history. Henderson et al. (1987) noted predation by *Uromacer* spp. Irish et al. (1988) described epidermal structure during shedding. Parasite infections by a nematode were described by Greve and Powell (1989) and Powell et al. (1990). Hedges (1996) cited a mean albumin ID distance between *L. schreibersii* and *Crotaphytus collaris* as 46, indicative of a divergence 28 million years ago.



Map 2. The range of *Leiocephalus schreibersii* in Florida.

The species is included in various reports, checklists, and guides by Boulenger (1885), Fischer (1888), Müller (1892), Meerwarth (1901), Schmidt (1921), Barbour (1930, 1935, 1937), Cochran (1924, 1928, 1932, 1934), Mertens (1938, 1939b), Böker (1939), Schwartz and Thomas (1975), Schwartz et al. (1978), Henderson and Schwartz (1984), Henderson et al. (1984), Schwartz and Henderson (1985, 1988), Banks et al. (1987), Collins (1990), Conant and Collins (1991), Burns et al. (1992), and Powell et al. (1996).

• **Nomenclatural History.** Etheridge (1966) stated that Duméril and Bibron (1837) (actually Cocteau *in* Duméril and Bibron, 1837) included *Leiocephalus schreibersii* in the synonymy of *Holotropis microlophus*. He in fact listed *Tropidurus Schreibersii* in his synonymy, but that name is a *nomen nudum*. Furthermore, Schwartz (1969) examined the syntypic series of *H. microlophus* and determined that the specimen from "St. Domingue" (presumably the reason *T. Schreibersii* was included in the synonymy of *H. microlophus* in the first place) in fact was referrable to *L. melanochlorus*.

• **Remarks.** Whereas *L. s. nesomorus* is allopatric with *L. s. schreibersii*, is morphologically distinct, and no evidence of gene exchange exists, Powell (1993) suggested that this taxon may represent a full species.

Obst et al. (1988), Collins (1990), Conant and Collins (1991), and Frank and Ramus (1995) used the common name "Red-sided Curlytail Lizard" for this species and "Curlytail Lizards" for the genus. However, the capacity to curl the tail is variable in the genus and *L. schreibersii* does not do so. As a result, we chose not to use these names.

• **Etymology.** The name *schreibersii* obviously is a patronym, although for whom is unknown; and *nesomorus*, from the Greek

nesos (island) and *metecho* (to have a share of) is an allusion to the fact that no other *Leiocephalus* occurs on Île de la Tortue.

1. ***Leiocephalus schreibersii schreibersii* (Gravenhorst)**

Tropidurus Schreibersii: Fitzinger, 1826:49. *Nomen nudum.*
Pristinotus schreibersii Gravenhorst, 1837[1838]:739. See species synonymy.
Steironotus schreibersii: Fitzinger, 1843:70. See species synonymy.
Liocephalus schreibersii: Cope, 1868:123. See species synonymy.
Leiocephalus schreibersii: Barbour, 1914:301. See species synonymy.
Leiocephalus schreibersi schreibersi: Schwartz, 1968:41. First use of trinomial.
Leiocephalus c(arinatus). schreibergi: Ashton and Ashton, 1985: 172. *Lapsus.*
Leiocephalus schreibersii schreibersii: Burns et al., 1992:229.

• **Diagnosis.** This subspecies can be distinguished by the following combination of characters: pale dorsal coloration, usually with yellow, gold, or buffy dots; venter grayish or pale bluish; and parietals usually not in contact.

2. ***Leiocephalus schreibersii nesomorus* Schwartz**

Leiocephalus schreibersi nesomorus Schwartz, 1968:47. Type-locality, "Palmiste, Ile de la Tortue, Haiti." Holotype, Museum of Comparative Zoology (MCZ) 81120 (original number ASFS X2305), adult male, collected on 12 July 1962 by a native collector (not examined by authors).
Leiocephalus schreibersi nssomorus: Schwartz and Thomas, 1975:138. *Lapsus.*

• **Diagnosis.** This subspecies can be distinguished by the following combination of characters: dorsal pattern with an irregularly-edged broad median brown band bordered laterally by dull buffy-brown bands, and without flecks or dots; venter pale rose-orange; and parietals usually in contact.

• **Acknowledgement.** We thank Kraig Adler for help in clarifying the status of *Holotropis microlophus*.

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